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THE RHODE ISLAND MEDICAL JOURNAL

Volume XXIV

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DOCTOR WILLIAM HUNTER

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The sturdy band of Puritans which settled Newport was headed by a physician, Dr. John Clarke. He was also a minister, and on Sundays preached at the Baptist church. A tablet to his memory has been placed in the Newport Historical Society, erected by the Newport Medical Society. From this time forward, Newport has been blessed with a series of famous physicians and surgeons, many of whom have contributed to the progress of medicine. One of the most famous of these doctors is the subject of this sketch.

Dr. William Hunter was born in Scotland in 1729, was a relative of the famous Sir John and his brother, William Hunter, studied at Edinburgh under the elder Munro (*primus*), came to Rhode Island about 1752, gave at Newport the first lectures in anatomy and surgery ever delivered in the colonies, possessed the largest Medical Library in New England, and died in his 47th year. His widow went to England in 1786 and unfortunately directed her agent to burn a trunk full of letters. Were these papers in existence today, we would doubtless know much more of the life of this man who contributed so much to the reputation of Newport as a medical center in the early days. He served in wars before coming to this country, when he was a Surgeon's Mate at Culloden Field, and during the French and Indian War in America he was Surgeon in the expedition against Crown Point and in the successful British march into Canada.

When Dr. Hunter came to this country as a young man of 22 or 23, he brought a valuable collection of books, some of which are now preserved in the library of Brown University. About the same time John Brett, Thomas Moffatt, John Haliburton, and other well known medical men came from the mother country to Newport. Hunter quickly gained prominence in Newport because graduates of European medical schools were none

too common in the colonies at that time and he was the first "male accoucheur" in the colony.

In 1755, only three years after his arrival, Hunter advertised in the Boston Evening Post of January 20, 27, and February 3, 1755 (as there was no newspaper in Newport at that time) his intention of giving a series of lectures on anatomy and surgery.

The celebrated Benjamin Waterhouse said concerning these lectures: "About the year 1756, Dr. William Hunter gave at Newport, R. I., the first anatomical and surgical lectures ever delivered in the twelve Colonies. They were delivered in the Court House, two seasons in succession, by cards of invitation, and to great satisfaction. His collection of instruments was much larger than any professor exhibits at this day. Doctor Hunter was a man of talents, well-educated at Edinburgh, and a gentleman of taste in the fine arts." (Peterson.)²

Unfortunately the manuscript of these lectures cannot be located, but that they were actually given and well attended is proven by the existence of at least two tickets of admission on the familiar playing card backs (No. 61, Mr. William Vernon, and No. 101, Mr. Brindley). These lectures were probably given for two seasons, 1755, and 1756, in the Old Colony or State House in Newport. There is every reason to believe that they were the first systematic, advertised public lectures on anatomy and surgery known to have been delivered in this country. It is true that Thomas Cadwalader gave lectures and demonstrations of dissections in Philadelphia in 1730, but it is still to be determined if these sessions approached systematic instruction.

Read before the Rhode Island Medical Society at the one-hundred and thirtieth Annual Meeting, held at Newport, May 28-29, 1941.

The material for this paper has been obtained largely from an article by Dr. E. B. Krumphaar in the *Annals of Surgery* for Jan. 1935. The author has kindly given permission to quote freely from this article.

Thomas Wood, surgeon of New York, advertised in the New York Weekly Postboy in 1752 that he would give a course in anatomy if sufficient encouragement were given to his advertisement, but it has never been ascertained that these lectures were ever given.

Hunter enjoyed a favorable position in Newport before the Revolutionary War and in 1758 was elected by the General Assembly Physician and Surgeon General to the Rhode Island Troops. As a Tory he was highly esteemed by the British and Colonial Loyalists, but when the Revolutionary War began he was bitterly hated and denounced by patriots such as Ezra Stiles, President of Yale College and other eminent patriots. The population of Newport in 1774 was 7,917 Whites, 1,292 Blacks, and 9,209 Indians. Some items from his ledger gave a glimpse of his daily methods, drugs, and prices.

	Sh.	D.
June 5th Mrs. Wright a box Ointment 2/6.		
& a Box pills 6/3d	8"	9"
— and Visited 3/ — 6th Visited 3/ —		
7th Visited 3/ —	9"	
10 Visited 3/ — 11th the Ointment Repeated 2/6	5"	6"
14 the pills Repeated 6/3 — and twenty powders 5/ —	11"	9"
and Visited 3/ — 22d the pills as before 6/3	9"	3"
22 ^d and powders; again 5/ — and Visited 3/ — July 4th visited 3/ —	11"	—

Hunter imported his own drugs from London and had an apothecary to put them up and sell them. The successors of this apothecary remained in the Hunter house until comparatively recent times. When the house was sold a few decades ago, a number of old glass jars and delft gallipots were found in the attic.

"He was a most eminently successful practitioner, as well as an operator in surgery; he appeared at that day to be bold and rash, but the truth was, he brought with him from Europe a more exact knowledge of anatomy, and greater surgical skill grounded on that knowledge, than existed in the colonies at that period."³

In 1761, in old Trinity Church, Hunter married the beautiful Deborah Malbone, daughter of one of the wealthiest aristocrats in the country. His beautiful daughters were highly regarded, and while the French officers were stationed at Newport, the many followers of Rochambeau sang their praises and traced their names upon the windows of their quarters.

Like most successful men, Hunter had his enemies. One of the most vindictive of these was Ezra Stiles. Quoting from his journal⁴ written in 1777 we find, "Heard of Dr. Hunters' death in Newport. He was a Scotch Physician — spent about two years in attending the medical Lecture in University of Edinburg — then came over to America 1754 circa, with nothing. Settled at Newport, where he got an Estate, turned chhman (Churchman, i.e. Church of England), became as haughty as a Scotch Laird, high in ministerial and parliam^y Measures, an inveterate Enemy to American Liberty — dressed well, was much of the Gentleman, lived high & luxuriously — could approve nothing but what was European, despised American Literature & Colleges — of polite Morals. Of natural good Sense & a taste for the belles Lettres — but not a man of any great Reading in any branch of Learning, even that of his own Profession. He tho't he bro't knowledge eno' with him out of Scotland, at aet. 21, for a physician in America."

Hunter is said to have been the first patron of Gilbert Stuart, the celebrated painter. The inventory of his personal estate throws an interesting light on the materia medica of his day. 273 different drugs are listed in amounts varying from a drachm of cinnamon and 31 lb. of ammonia. Many of these drugs have long since departed from our pharmacies, and many are unrecognizable. In Newport and its immediate vicinity reside many descendants of Dr. William Hunter. The writer recalls with particular pleasure a visit one summer afternoon a few years ago to one of them, Miss Anna Falconnet Hunter, who graciously entertained the Providence Medical History Club and exhibited many of the heirlooms which have descended from his day, particularly the glass jars and gallipots which were shown in the lantern slide. She also accompanied us on a tour, where we visited the apothecary shop and home, and his grave in the church yard of the old Trinity Church.

"Why should this man be given a distinguished position in early American medicine? Certainly not on account of his famous namesake, whether or not the relationship could be proved. The manuscript of his lectures, if it could be found, would of course afford a much more valid basis for judging his medical attainments than the scanty statements given here. According to Thatcher, he cor-

responded with Cullen and "his own illustrious kinsmen," but it has not been possible to uncover this evidence. At least, no letters from the Hunter brothers to their ancestor are known of by his descendants today. It might fairly be said that, possessed of unusual charm of personality and culture and of more than the average natural intelligence, fortunate in being trained in one of the best medical schools in the world, Hunter came to a new country to have given a publicly announced, successful course of lectures on anatomy and surgery. The importance of such an achievement need hardly be further emphasized. His military activities and successful professional career bear further witness to his worth and ability. Nor should his political attitude during the Revolution be regarded as other than the natural response of one of his position—an attitude similar to that of many of the leading citizens of New York, Pennsylvania and New England, well understood by most of their class and easily forgotten in favor of those who threw in their lot with the new country after the war was over. What the country lost by his early, untimely death can only be conjectured."

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THE MANAGEMENT OF PATHOLOGICAL LESIONS OF THE JAWS

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The diagnosis and treatment of lesions of the jaws and adjacent tissues fall within the field of specialization known as oral surgery. Although unable to lay claim to a long period of existence as an entity comparable to the many specialties in medicine, oral surgery is, nevertheless, firmly established upon sound principles. Since the pioneering days of Brophy and Gilmer constant progress has been

made which has been further augmented by the World War experiences. That today pathological lesions of the jaws are sometimes improperly handled is not attributable to any inadequacy of concepts of treatment, but rather to the failure to observe and apply those fundamentals which have been tested in the crucible of clinical experience.

Of the innumerable diseases involving the jaws, osteomyelitis ranks high in severity. The acute stage is characterized by excruciating pain, elevation of temperature, swelling of the part and signs of toxemia. The exciting cause is frequently the lighting up of some latent infection associated with the dental system; lowered resistance of the patient is an important factor. The deformities that result from ill-advised surgery can be little short of ghastly;¹ consequently, there is much need for conservatism. Treatment should consist of provision for adequate drainage, the removal of sequestered bone and the building up of the general resistance of the patient. It is to be noted that acute osteomyelitis in children may result in an asymmetrical facial contour. For this reason the treatment of acute jaw infections of the young assumes great importance.

The evolution of the theory of focal infection has given to dental disease a status not previously associated with it. Irrespective of the tendency to minimize sometimes the effect of infected teeth upon the general health, the belief prevails and it appears with sufficient substantiation, that such teeth do exert a definite influence on the course of systemic disease. At least it is to be conceded that the presence of infection at the apex of a tooth as in other parts of the body, lowers the resistance of the individual and thus renders him susceptible to the inroads of disease. This interrelation of general health and oral disease has brought physician and dental surgeon together upon common ground. Pain, which may radiate along the side of the cheek, within or around the ear, and throughout the facial regions, can frequently be traced to the presence of infected or impacted teeth. As an aid in the diagnosis of pathological changes involving the jaws the X-ray has become an invaluable adjunct.

Presented at the joint meeting of the Newport County Medical and Dental Societies, Newport, R. I., December 10, 1940.

From the division of Oral Surgery, the Massachusetts General and Carney Hospitals.

Two types of cystic lesions commonly involve the maxillary bones. The radicular cyst is found to originate always from a devitalized tooth, the membranous wall developing from normal epithelial rests. The follicular variety develops about the crown of an unerupted tooth. Since the third molar is frequently impacted the angle of the jaw is obviously a familiar location for this type. Excepting the adamantinoma which is locally malignant, these lesions are of a benign nature. Through progressive enlargement they may encroach upon contiguous structures often assuming large proportions. The treatment of cysts of the jaws is founded upon the oft-observed clinical fact that release of the pressure exerted by the fluid content will initiate the process of bone regeneration. A significant further observation is that the epithelial lining should not be considered true pathological tissue. Knowledge of these basic facts has revived the use of the Pertsch operation. The enucleation method in the case of large cysts can only be viewed as radical surgery, leaving in its wake normal teeth shorn of their nerve and blood supply, invaded maxillary sinuses and deformed jaws. The increasing recognition of the desirable features of this operation is noted both here and abroad in the trend toward conservatism in the treatment of cystic cavities.²

Major trigeminal neuralgia or tic douloureux may be differentiated from all other forms of neuralgia by the definite clinical features which characterize it. The pain is paroxysmal, lasts but a few seconds, comes and goes like a flash of lightning; it is provoked by eating, swallowing, talking, shaving or washing the face.³ Even though it may radiate over a large area, there is always one spot, sometimes referred to as "a trigger zone," in which it is severest. The disease is as a rule unilateral. Though much is yet to be learned about its etiology the treatment of tic douloureux is thoroughly established. Too much stress cannot be placed upon the importance of first definitely determining the particular nerve which is involved. The use of novocaine to anesthetize the various branches is especially effective for the purpose of preliminary study. Sectioning the sensory root of the gasserian ganglion is practiced in the worst cases. However, severing the terminal branches of the fifth nerve and the use of alcoholic injections will keep most of these unfortunate patients in a satisfactory state of comfort.

Numerous neoplasms develop within the oral cavity. The most common is the benign giant cell tumor known as the epulis; it arises either from the periosteum or peridental membrane. In addition the fibroma, papilloma and osteoma are found. The necessity for early detection of signs of malignancy applies with equal force to the mouth. Ulcerative areas which do not heal and tend to bleed on slight irritation should be viewed with suspicion. In swellings of the maxillary regions a differential diagnosis should always be made between alveolar abscess and primary cancer of the antrum. All growths of the mouth should be subjected to pathological study to determine the histological character.

Although most often caused by traumatic rather than pathological means, fractures of the jaws continue to occupy an increasingly important place in that group of injuries which affects the bones. In contrast to the simpler type produced in the past, automobile injuries are today usually of a crushing and comminuted nature. Lacerated facial tissues and multiple fractures of the maxillary bones testify to the force of the impact of modern transportation vehicles. In spite of the fact that the principles underlying the treatment of fractures of the jaws were long ago established, cases are daily being handled by methods which are now considered obsolescent. By far the majority of fractures can be treated by means of intra-oral immobilization. The headbandage is of limited value for fixation purposes. When carefully performed by the trained oral surgeon restoration of functional and cosmetic requirements is readily obtainable.

The management of pathological lesions of the jaws entails the use of the diagnostic tripod of clinical observation, X-ray interpretation and laboratory findings. Diagnosis is based upon correlation of the facts thus derived. Failure to obtain good end-results is attributable in many cases to the departure from those principles which have been long existent and firmly established in the field of oral surgery.

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ADDISON'S DISEASE

MANAGEMENT OF A TYPICAL CASE WITH DESOXYCORTICOSTERONE ACETATE IN OIL AND BY PELLET IMPLANTATION

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The management of Addison's Disease prior to 1930 was very unsatisfactory, and the prognosis was very grave. Since then the treatment of acute adrenal insufficiency has made rapid strides.

The preparation of a potent cortical extract in 1929 by Pfiffner and Swingle,¹ the value of sodium chloride as pointed out in 1933 by Loeb,² and the relationship between cortico-adrenal insufficiency and potassium metabolism as emphasized in 1936 by Truszkowski and Zwemer³ are a few of the fundamental advances which in the past several years have stimulated much important investigation in the management of this condition.

The next major advance came in 1937 when Steiger and Reichstein⁴ prepared desoxycorticosterone synthetically. Later, in 1938, Reichstein and Von Euw⁵ isolated desoxycorticosterone from fresh adrenal glands.

The preparation and isolation of this cortical principle marked the beginning of a long series of important papers on the subject, notably by Dr. George W. Thorn and his associates of the Hopkins group, and others.^{6, 7, 8}

The following case is reported because it represents a typical case of acute Addison's Disease successfully treated with desoxycorticosterone acetate in oil and subsequently maintained in excellent balance with pellet implants of the crystalline adrenal cortical hormone.

Report of Case

HISTORY: H. B., a 36 year old white married male was admitted to the medical service of the Rhode Island Hospital on May 4, 1940 complaining of pain in the left upper abdomen and flank, weakness and darkening of the skin. His present illness began 6-8 months before admission when the patient first noted increasing weakness and easy fatigue. In April, 1940, (five weeks before admission) he suddenly became worse and felt generally poor. He lacked energy and had no ambition. Weakness became most unusual for shaving or even talking to a prospective customer seemed to consume all his strength. There was marked ano-

rexia, and he had lost about 20 pounds in the several months prior to admission. During his illness he had become practically impotent being unable to carry on normal sexual activity. Three weeks before admission a business associate called the patient's attention to the "yellowish" appearance of his skin, and from that point on many had noticed the change. About ten days before he was seen at the hospital he developed sharp abdominal pain which localized in the left upper flank and costovertebral angle. At this same time he noted an increased desire for salt on his food. There was little or no nausea or vomiting. Because he was becoming progressively worse he was forced to seek medical advice.

The patient's sister-in-law has pulmonary tuberculosis and his brother-in-law is thought to have died of this condition recently. The patient's past health had always been excellent.

Physical examination on admission, May 4, 1940, revealed a thin, dehydrated, poorly nourished white male of slight build. He was drowsy and appeared rather weak and showed evidence of considerable weight loss. His temperature was 99° F., pulse rate 85 per minute, respirations 22 per minute and blood pressure 98/55 mm. Hg. He weighed 49.7 kilograms (109 lbs.). The skin over the entire body was diffusely tanned but the skin of the face, neck, axillae, hands and genitalia showed an intense brownish discoloration. The areolae were almost black as were several nevi scattered over the surface of the body. The buccal mucosa contained a large patch of bluish brown discoloration and numerous smaller, discrete patches of pigment were easily visible along the soft palate. There was a mild but definite bilateral conjunctivitis. The lungs were clear. The heart sounds were distant and of poor quality, and the peripheral pulses were feeble. The abdomen was everywhere normal except at the left upper quadrant where tenderness on palpation was elicited but no spasm or masses were present. Marked tenderness was also elicited at the left costovertebral angle. The remainder of the examination was considered normal.

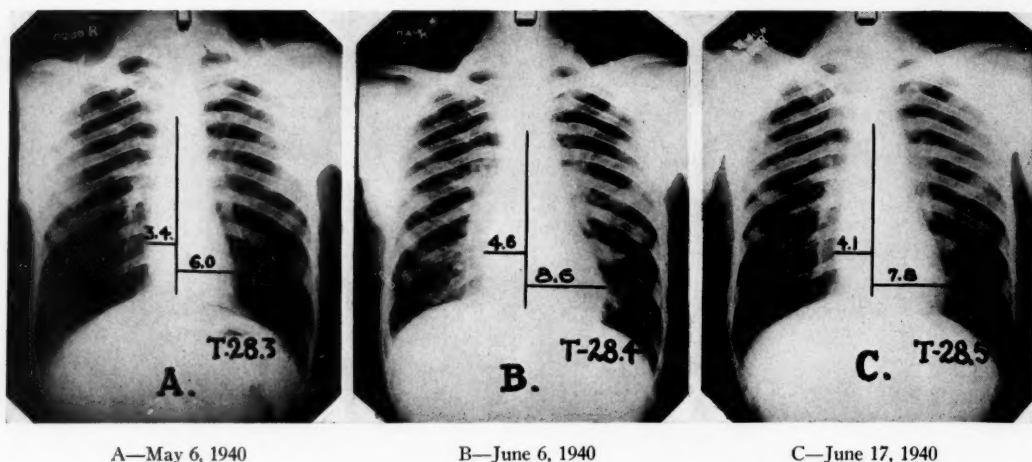


Fig. 1. Serial Teleortgenograms showing (A) the size and appearance of the heart and lungs two days after admission; (B) the increase in the transverse diameter of the heart and pulmonary congestion when signs of drug overdosage developed a month later; and (C) the normal chest plate 11 days after B when the patient was well under control and in excellent condition.

LABORATORY DATA ON ADMISSION: The red blood cell count was 5.3 millions; hemoglobin 15.5 grams (108 per cent); white blood count, 8,800 with polymorphonuclears 68 per cent; eosinophiles 4 per cent; lymphocytes 22 per cent; and monocytes 6 per cent. The sedimentation rate (Wintrobe) was 48 mm. in one hour and the volume of packed red blood cells was 46 per cent. The blood Wasserman and Hinton tests were negative. The blood urea nitrogen was 16 mg. per 100 c.c.; blood sugar 86 mg. per 100 c.c.; carbon dioxide combining power 47 volumes per 100 c.c. of plasma; whole blood sodium chloride 487 mg. per 100 c.c.; icteric index 6.6. Examination of the urine was not remarkable except for a one plus sugar. Tuberculin 1:1000 was mildly positive.

The basal metabolic rate was minus 11.6 per cent. X-ray of the chest revealed normal lung fields, and a small heart, measuring 9.4 centimeters in its greatest transverse diameter, this being less than one third the internal diameter of the chest (Fig. 1A). A flat plate of the abdomen revealed no evidence of pathology in the regions of the adrenal glands. An electrocardiogram was reported as being within normal limits. A skin biopsy showed a marked degree of pigmentation of the skin due to melanin.

Course in the Hospital

Three days after admission the patient was placed on a salt free diet. In less than 48 hours a typical Addisonian crisis was precipitated. This was manifested by nausea, vomiting, severe left upper abdominal pain, anorexia, marked exhaustion, drowsiness and the feeling of impending death. He appeared critically ill. Examination of the abdomen revealed exquisite tenderness and some spasm in the left upper quadrant and tenderness in the left costovertebral angle. The findings were almost indistinguishable from an acute surgical abdomen and had not the diagnosis of Addison's Disease been made, the patient would certainly have been a candidate for surgical intervention. Auscultation of the heart was not especially remarkable except for sounds which were feeble and distant. The blood pressure was 80/40 mm. Hg.

Laboratory data obtained during the crisis as well as subsequent data determined at frequent intervals are recorded on Chart I.⁹ The whole blood sodium chloride¹⁰ fell from 487 mg. to 437 mg. per 100 c.c. and the blood urea nitrogen rose from 16 mg. to 32 mg. per 100 c.c. In view of the patient's critical condition further delay in the institution of specific therapy was no longer considered advisable. It was at this point that the

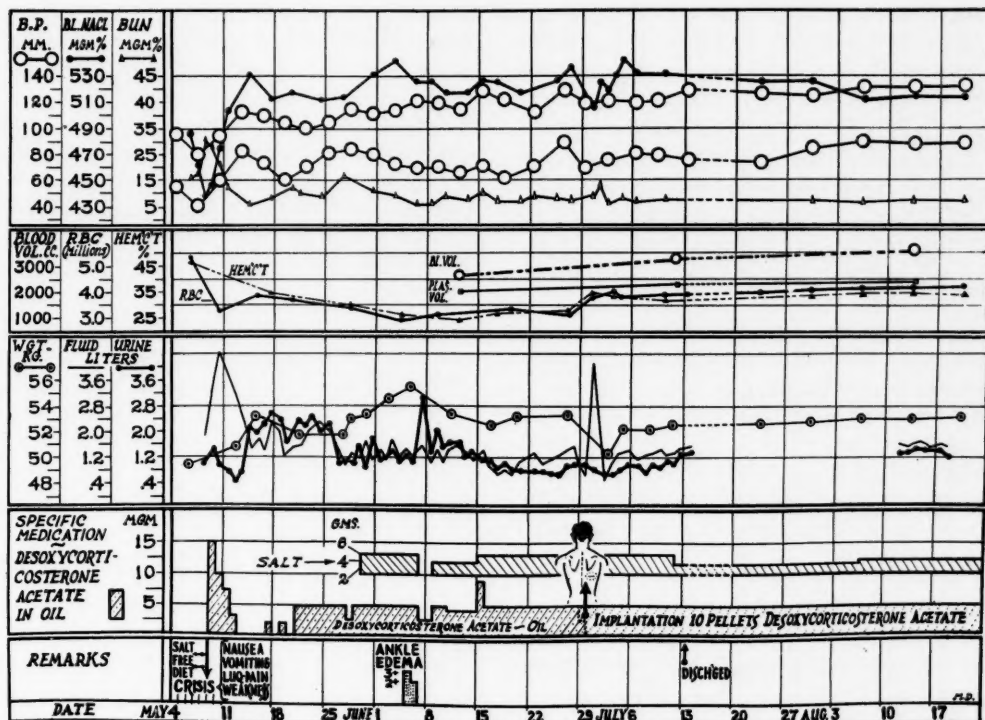


CHART I. Shows the progress of the patient over a period of 4 months. Complete explanation is found in the text.

new cortical principle was started. He was given 15 mg. desoxycorticosterone acetate in sesame oil intramuscularly in divided doses and intravenous infusions of normal saline. In a few hours a rather dramatic clinical recovery had occurred. He was now able to talk and sit up in bed. For four days following the crisis he received the synthetic hormone in maintenance doses supplemented by intravenous infusions, fruit juices and Addison's elixir.¹¹ Chart I clearly shows that coincident with the institution of specific therapy the blood salt rose sharply and the blood urea nitrogen fell until both values were within the normal range. The blood pressure which was 80/40 mm. Hg. during the crisis in a few days rose to 110/80 mm. Hg. The red blood cell count fell from 5.3 millions (hemocentration) to 3.3 millions within 24 hours and the volume of packed red blood cells decreased

proportionately in the same period of time (hemodilution). These values, namely, the rise in the whole blood sodium chloride, the decrease in the blood urea nitrogen, the increase in the plasma volume, the fall in red count and hematocrit, the elevation in blood pressure and the marked improvement in the patient generally showed that a more normal sodium chloride and water balance had been established.

On 5 mg. desoxycorticosterone acetate in oil daily, supplemented by 6 grams of added salt in the form of enteric coated tablets and a regular diet without potassium restriction, the patient improved steadily and was out of bed in less than two weeks. He did exceedingly well on this regimen for one month and it appeared as if the patient were in excellent salt and water balance. But at this time the patient developed signs of overdosage. These

were pitting edema of the ankles, pulmonary congestion (basal rales), increase in the transverse percussive diameter of the heart (Fig. 1 B) and sudden weight increase (Chart, June 6). The findings were associated with dullness and apprehension and the patient was forced to bed.

A reduction in the dose of the hormone to 2.5 mg., the temporary discontinuance of the added salt in the form of tablets and the complete omission of the elixir resulted in a diuresis, decrease in weight and, subsequently, the disappearance of all signs of overdosage mentioned above (Chart I). An X-ray of the chest 11 days later showed clear lung fields and a decrease in the transverse percussive diameter of the heart (Fig. 1 C). Subsequently, the patient was again placed on 5 mg. of the hormone intramuscularly and only 4-6 grams of salt tablets daily in addition to a regular diet. On this regimen, the patient was finally maintained in excellent balance as determined by: (a) body weight; (b) blood pressure; (c) laboratory data; (d) and the maintenance of normal activity. In addition, potency returned to such an extent that he was able and eager to carry on sexual activity. It is obvious that the extra salt (approximately 10-15 grams) in the form of the elixir was chiefly responsible for the appearance of overdosage signs since readjustment was prompt and complete following its discontinuance. Apparently there had been retention of abnormally large amounts of salt and water from excessive doses of sodium chloride.

Six and one-half weeks on specific therapy under careful observation in the hospital convinced us that the patient was well under control both clinically and as determined by laboratory data.

Implantation of Pellets of Desoxycorticosterone Acetate

Thorn and his associates^{12,13} recently found that pellet implants of crystalline desoxycorticosterone acetate may be successfully substituted for the daily injections of the hormone in oil. In addition, they pointed out that one pellet of approximately 125 mg. is necessary for each 0.4 to 0.5 mg. of the hormone in oil that is required daily. They also found that the administration of the hormone in pellet form was 30 to 40 per cent more efficient than the daily injections of the preparation in oil.

On the basis of this fundamental work it was calculated that 10 pellets (1 pellet of 125 mg. for each 0.5 mg. of the oil preparation required daily) would supply the patient with 5 mg. of the synthetic hormone, the amount found necessary for maintenance of normal activity. On June 29, 1940, ten pellets, approximately 1250 milligrams, of crystalline desoxycorticosterone acetate were implanted subcutaneously in the infrascapular region, this quantity being theoretically sufficient to supply the patient with cortical principle for at least one year.

Following the implantation, the hormone in oil was omitted but he continued to receive 3-6 grams of added salt in tablet form daily. The patient progressed remarkably well on this regimen and on discharge two weeks after the implantation (July 13th) the patient was symptom free and in excellent condition. His blood pressure at this time was 130/75 mm. Hg. The red blood cell count was 3,800,000; hemoglobin 11.4 grams (80 per cent); white blood cell count 5,350 and the differential was normal; volume of packed red blood cells 31.5 per cent. The whole blood sodium chloride was 538 mg. per 100 c.c.; blood urea nitrogen 5.6 mg. per 100 c.c.; blood sugar 53 mg. per 100 c.c.; total protein 5.8 grams per 100 c.c.; the blood volume was 3210 c.c. The glucose tolerance test and the basal metabolic rate were within normal limits.

Several teleorentgenograms following the implantation revealed clear lung fields and normal cardiac outlines. Likewise repeated electrocardiographic tracings were normal.

At present, eighteen months after desoxycorticosterone acetate was first started, the patient is well. He maintains normal activity at home and at work without limitation. Since discharge the patient has been making regular visits to the hospital for check up and each visit found the patient in excellent condition. His last visit revealed that he had gained approximately 6 kilograms in weight and the blood pressure had continued at a normal level averaging 128 systolic and 85 diastolic. Repeated blood sodium chlorides have varied between 512 mg. and 540 mg. per cent, the blood sugar between 57 mg. and 82 mg. per cent; the blood volume has continued to rise, the last one being 3520 c.c. Other laboratory data had steadily improved until all values were entirely normal.



FIG. 2. Shows (A) the deeply pigmented hand of the patient and (B) the hand of a normal male.

Comment

The diagnosis of acute adrenal insufficiency was obvious on admission and was definitely confirmed by a brief period of sodium chloride withdrawal.

It is interesting that in spite of the seriousness of the patient's condition on admission, normal values were obtained for whole blood sodium chloride. Likewise repeated chloride determinations on whole blood during the crisis resulted in values only slightly below the normal range (450-500 mg. per cent).

The Benedict Method,¹⁴ which is nearly specific for glucose and monosaccharides of like reducing properties was used for blood sugar determinations. The normal fasting blood glucose by this method ranges from 60 mg. to 100 mg. per 100 c.c. and the curve (Chart II) shows that sugar values obtained after desoxycorticosterone acetate in oil was started were within these limits. Determinations taken at frequent intervals for two weeks following pellet implantation were slightly below the normal range. Since then, however, the glucose metabolism has been essentially normal.

Over-dosage phenomena (edema, pulmonary congestion, increase in weight, etc.), if carefully observed, are readily amenable to a reduction in hormone, the sodium chloride intake or both. The experience in this case, suggests that signs of over-dosage are an important guide in the ultimate regulation of the daily hormonal requirement.

Although the patient is still definitely pigmented, a considerable decrease in the intensity of pigmen-

tation has occurred since specific therapy was first instituted.

Although hypertension has complicated the use of desoxycorticosterone acetate in the experience of others,¹⁵ this has not been a factor in this case. This may be explained by the fact that the patient was assayed for several weeks under careful supervision in the hospital before the implantation of pellets of the crystalline hormone was undertaken.

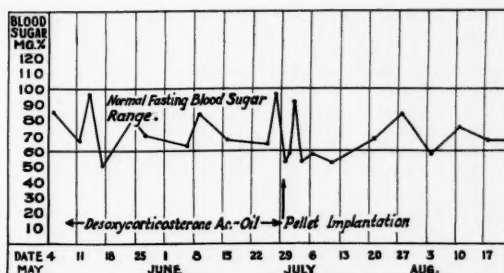


CHART II. Fasting blood sugar values before and after the use of desoxycorticosterone acetate.

Summary

A typical case of acute Addison's Disease is presented. The patient was maintained in excellent balance on 5 mg. desoxycorticosterone acetate in sesame oil supplemented by added salt for six and one-half weeks. Subsequently ten pellets of crystalline adreno cortical hormone weighing approximately 125 mg. each were implanted subcutaneously in the infra-scapular region.

Since discharge the patient has been on a regular diet without added salt and has been symptom free. He has maintained a normal blood pressure and has successfully resumed his activities without restriction at home and at work.

From the Medical Service of the Rhode Island Hospital. Presented at the meeting of the Providence Medical Association held on June 2, 1941.

Thanks of the writer are expressed to Dr. George W. Thorn of the Johns Hopkins Hospital for his kind advice and help, to Dr. Paul C. Cook for clinical assistance, to Russel O. Bowman, Ph.D. for chemical analyses, and to Dr. Emery M. Porter, Chief of the 2nd Surgical Division, Rhode Island Hospital.

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CONSULTANT AND ATTENDANT

When a physician has attended a case as a consultant, he should not become the attendant of the patient during that illness except with the consent of the physician who was in charge at the time of the consultation.

From the Code of Ethics of the A. M. A.



THE RHODE ISLAND MEDICAL JOURNAL

Medical Library Building
106 Francis Street, Providence, R. I.

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STATUS OF STATISTICS

In a recent paper on "The Statistical Method", H. E. Campbell, comparing immediate with delayed operation, stated: "In the series with delayed operation, the mortality was 1.5 per cent whereas in the series with immediate operation, the mortality was 4.8 per cent. Thus it is seen that death occurs more than three times as frequently after immediate operation." Commenting on this statement, *The Journal of the American Medical Association* holds that "While it is true that 4.8 is more than three times 1.5, from the standpoint of recovery there is little difference between 95.2 and 98.5. The important fact is that the difference is 3.3 and not that 4.8 is three times more than 1.5."

We do not share this callous approach to the interpretation of medical statistics. With the mortality rate of 4.8 per cent more than three times greater

than one of 1.5 per cent, there is a great deal of difference between the recovery rate of 95.2 and 98.5. From the standpoint of the patients in the 3.3 per cent group, there is all the difference in the world.

The statistical method, originated by Louis of Paris, was introduced in this country by Oliver Wendell Holmes in his study of "The Contagiousness of Puerperal Fever." The proposition which Holmes undertook to prove was this: "The disease known as puerperal fever is so far contagious as to be frequently carried from patient to patient by physicians and nurses." From the report of the Registrar-General of England and Wales he learned that the rate of maternal mortality was about five in 1,000. In the Dublin Lying-In Hospital there was one death from puerperal fever in 278 cases, a mortality rate of 3.6 per thousand. From these figures he calculated that the chance of one practitioner having sixteen deaths from puerperal fever in one month was one in several million. Yet in one month, one midwife delivered thirty women, of which number sixteen caught the disease and died. There were numerous instances in which one physician encountered a succession of cases of puerperal fever while other physicians in the neighborhood had no such cases. There were instances where all the patients delivered by one physician in a period of weeks or months developed puerperal fever. Holmes was able to present statistical proof of his hypothesis.

Holmes found the maternal mortality in England and Wales a hundred years ago to be about five in 1,000, .5 per cent. For the year 1940 the gross maternal mortality at the Providence Lying-In Hospital was .21 per cent. Maternal mortality a hundred years ago was more than twice as great as it is at the present time. In the former time the chance of recovery was 99.5 per cent; at the present time it is 99.79 per cent. The difference is .29 per cent. It would not be fair to hold that there is little difference between the maternal recovery rate of 99.5 per cent and that of 99.27 per cent because this is the statistical statement of the improvement in obstetrics for the past hundred years. For the patients who were treated at the prenatal clinic and were delivered at the Providence Lying-In Hospital in 1940, the maternal mortality rate was .059 per cent. While the difference between the chance for recovery between this record and that of a hundred years ago is represented by the figure .441 per cent, the

chance of fatality has been reduced to about one-tenth of the mortality rate of a hundred years ago. There is a great deal of difference.

While it has often been stated that figures can be made to prove anything, statistics of mortality are the most exact check which we have on the results of medical and surgical work. The figures cannot lie but they may be misinterpreted. Often it is better to accept medical statistics without interpretation.

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RHODE ISLAND MEDICAL SOCIETY

Council

The regular meeting of the Council of the Rhode Island Medical Society was held at the Medical Library, Thursday, September 18, 1941, at 4 P. M., the President, Dr. Frederic V. Hussey, presiding.

The minutes of the last meeting were read and approved. There was some informal discussion about certain members who are behind with their dues and also about the type of the next scientific meeting.

Present, Drs. Hussey, Mowry, Hammond, Jones, Brackett, Gormly, Ashworth and Buffum.

The meeting adjourned at 4:20 P. M.

Respectfully submitted,

WILLIAM P. BUFFUM, M.D.,

Secretary

House of Delegates

The regular meeting of the House of Delegates of the Rhode Island Medical Society was held at the Medical Library, Thursday, September 18, 1941, at 4:30 P. M., the President, Dr. Frederic V. Hussey, presiding.

The minutes of the last meeting of the House of Delegates were read and approved. The minutes of the last meeting of the Council were read. The minutes of the Annual Meeting and the report of the Delegate to the American Medical Association were omitted because they had already been printed.

The Secretary read a report of the subcommittee on Child Health Relations submitted by Dr. Henry E. Utter.

On a motion by Dr. Mowry, the dues for the ensuing year were fixed at \$10.00.

The meeting adjourned at 5:10 P. M.

Respectfully submitted,

WILLIAM P. BUFFUM, M.D.,

Secretary

CORRESPONDENCE

MALIGNANT GROWTHS REPORTABLE

August 26, 1941.

Dear Doctor

Below is a copy of the law, making malignant growths reportable to the State Department of Health.

JANUARY SESSION, 1941—CHAPTER 1014 CHAPTER 1014

AN ACT IN AMENDMENT OF AND IN ADDITION TO SECTION 15 OF CHAPTER 255 OF THE GENERAL LAWS, ENTITLED "DEPARTMENT OF PUBLIC HEALTH AND THE DIRECTOR THEREOF, (NOW DEPARTMENT OF HEALTH AND THE DIRECTOR THEREOF)," AS AMENDED.

S 138 Approved April 9, 1941.

IT IS ENACTED BY THE GENERAL ASSEMBLY
AS FOLLOWS:

"Sec. 15 (B) Any physician knowing or having reason to know that a patient treated or visited by him has cancer, carcinoma, lymphoma, sarcoma, leukemia, or other malignant growths, or any superintendent or other person, in charge or control of any hospital or similar institution having in charge or under its care or custody any person suffering with cancer, carcinoma, lymphoma, sarcoma, leukemia, or other malignant growths shall report the same within seven days to the state department of public health, in writing, on blanks furnished by said department as it directs. These reports shall be confidential and not open to public inspection. All persons charged with any duty under this section who shall fail or refuse to comply with the requirements of this section shall be guilty of a misdemeanor and upon conviction thereof be fined not less than \$10.00 nor more than \$100.00 for each offense."

Trusting that you will cooperate with the Rhode Island Medical Society and the State Department of Health in promptly reporting cases of malignant growths as required by law, I remain

WILLIAM P. SHIELDS, M.D.,

Epidemiologist

CIVILIAN DEFENSE

Washington, D. C.

September 25, 1941

To Secretaries of State Medical Societies and
Editors of Journals

According to a joint statement issued on September 4 by the U. S. Director of the Office of Civilian Defense, F. H. LaGuardia, and the Chairman of the American National Red Cross, Norman H. Davis, State and local defense councils are the official agencies responsible for the coordination of all available resources which may be required for civilian protection in the event of belligerent action. Defense Councils should therefore acquaint themselves with the resources of the local Red Cross Chapters in providing food, clothing, shelter, nursing care, transportation, and other basic necessities and should integrate them into the comprehensive local program. Duplication of trained and experienced personnel and of available supplies of the Red Cross should be avoided except where supplementation is essential to meet the anticipated needs of the community.

Very truly yours,

GEORGE BAEHR, M.D.,

Chief Medical Officer

CHILDREN'S BUREAU NEEDS MATERNAL AND CHILD HEALTH SPECIALISTS

Employment registers are to be established by the Civil Service Commission to fill maternal and child health specialist positions in the Children's Bureau of the Department of Labor. Vacancies in similar positions in State agencies cooperating with the Children's Bureau may also be filled from these registers at the request of the States concerned. The examination announcement just issued by the Civil Service Commission to recruit persons for these positions allows the filing of applications until November 15, 1941.

There are three options in which persons may qualify—pediatrics, obstetrics, and orthopedics. For each of these options employment lists will be established for administrative, research, and clinical positions. The duties of the administrative positions include giving consultations and advisory service to State and other Government agencies carrying out maternal and child health programs. The research positions involve the planning or directing of studies in such fields as infant and maternal mortality, and child growth in relation to social, economic, and other factors. Persons appointed to clinical positions will do clinical work in one of the options.

A written test will not be given for these positions. Competitors will be rated on their education, experience and corroborative evidence. Applicants must have graduated from a medical school of recognized standing with an M.D. degree and must have served a 1-year internship. In addition they must have had full-time post-internship clinical training as well as other appropriate experience in the option selected and in the type of work in which they seek appointment.

Doctors of Medicine who are interested in this opportunity for Government employment are urged to seek further information about these positions which pay from \$3,200 a year to \$5,600 a year. Further information and application forms may be obtained from the Commission's representative at any first- or second-class post office or from the central office in Washington, D. C.

RED CROSS BLOOD COLLECTIONS TO GO ON NATION-WIDE BASIS AT REQUEST OF ARMY AND NAVY

At the request of the Surgeons General of the Army and Navy, the American Red Cross will extend its blood collection program to key metropolitan cities on the Pacific coast and in the midwest. This was announced at national headquarters by James L. Fieser, vice chairman in charge of Red Cross domestic operations, who said negotiations were now under way with large chapters, which because of the geographical location, size and facilities, were equipped to be included in the program.

At present seven eastern cities are engaged in the project. Collections are shipped by refrigerated express to a processing depot at Philadelphia where

blood is reduced to dry plasma form for use by the Army and Navy. Arrangements are being worked out with biological laboratories in the midwest and Pacific areas for processing blood collections received from the cities to be added, Mr. Fieser said.

Plans for extending the collection program were announced following completion of a "pilot" project in which blood donors of the seven eastern cities filled an initial request of the Navy for 15,000 donations. It was explained that most of these, after being processed and hermetically sealed, already have been placed aboard U. S. fighting ships engaged in the Atlantic sea patrol.

"The present emergency requires that the Red Cross take every necessary step to provide as soon as possible an adequate supply of plasma for the Army and Navy," Mr. Fieser said. "Some 200,000 donors will be needed to fill current requests of our military and naval forces. Extension of the collection program will enable the Red Cross to meet these requests.

"Those who have given their blood can have the satisfaction of knowing that it is today on the high seas safeguarding the lives of our sailors. Donations in increasing numbers not only will enable the Red Cross to complete its purpose of supplying adequate supplies to our naval vessels, but also will make it possible to furnish medical units of the Army the amounts requested."

The first step in widening the blood collection program will be to set up collection depots at Los Angeles, San Francisco, Chicago, Detroit, St. Louis, Cleveland, Indianapolis, Cincinnati and Pittsburgh. Those cities now engaged in the program include New York, Boston, Philadelphia, Baltimore, District of Columbia, Buffalo and Rochester (N. Y.). As the program gains momentum, other cities will be added.

Biological laboratories undertaking the processing of the blood have agreed to do so on a non-profit basis, Mr. Fieser said.

ANNOUNCEMENT OF VAN METER PRIZE AWARD

The American Association for the Study of Goiter again offers the Van Meter Prize Award of Three Hundred Dollars and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The Award will be made at the annual meet-

ing of the Association which will be held at Atlanta, Georgia, June 1st, 2nd, and 3rd, providing essays of sufficient merit are presented in competition.

The competing essays may cover either clinical or research investigations; should not exceed three thousand words in length; must be presented in English; and a type-written, double spaced copy sent to the Corresponding Secretary, Dr. T. C. Davison, 478 Peachtree Street, Atlanta, Georgia, not later than April 1st.

A place will be reserved on the program of the annual meeting for presentation of the Prize Award Essay by the author if it is possible for him to attend. The essay will be published in the annual Proceedings of the Association. This will not prevent its further publication, however, in any journal selected by the author.

UNITED STATES HOSPITAL SERVICE

The most widespread survey ever made of hospital bed facilities in the United States, released by the Census Bureau of the Department of Commerce, reveals that 1,282,785 beds were available in 9,614 institutions for the medical care of the American people in 1939.

The country's 6,991 hospitals and sanatoriums provided the great bulk of this care—355,145,063 patient-days, or the equivalent of one week-end stay in a hospital each year for every person in the United States. Infirmaries and nursing, convalescent, and rest homes provided the remainder.

Existing facilities are not being used fully, the Census Bureau Survey indicated. Allowing a margin of reserve for epidemic peaks, the Committee on the Cost of Medical Care estimated that general hospitals would operate most efficiently with an occupancy of 80 percent, and mental and tuberculosis hospitals with an occupancy of 90 percent.

In 1939, general hospitals were operating at 70 percent of capacity, tuberculosis hospitals at 85 percent, and mental hospitals at 95 percent. The Census Bureau noted that many mental hospitals are overcrowded, due to rapidly increasing hospitalization for this type of illness.

Although only 594 hospitals—less than one in ten—were for nervous and mental patients, they had 602,850 beds or more than one-half of the total for all types of patient. They gave 208,466,000 patient-days of care.

The 5,912 general hospitals gave 122,467,000 patient-days of care, and the 485 tuberculosis hospitals 24,212,000 patient-days.

Approximately 77 percent of the care rendered in 1939 was in state, local and federal government-controlled hospitals, 20 percent in non-profit institutions and 3 percent in proprietary institutions, the Census Bureau noted. The large proportion of care financed by taxes is due to government tuberculosis sanatoriums and government hospitals for mental patients.

MEDICAL-CARE BEDS IN THE UNITED STATES

(Classification based on the "minimum requirements" set up by the Committee on the Costs of Medical Care)

	Total Number of Beds	Beds per 10,000 Population
<i>Good Facilities</i>		
Dist. of Columbia	12,858	194
Massachusetts	66,205	153
New York	192,345	143
Colorado	15,427	137
Maryland	22,836	125
<i>Adequate Facilities</i>		
California	85,365	124
New Hampshire	6,028	123
Vermont	4,387	122
Rhode Island	8,659	121
Washington	20,780	120
Connecticut	20,257	119
Delaware	3,133	118
Wyoming	2,903	116
Minnesota	31,897	114
New Jersey	47,494	114
Oregon	12,238	112
Wisconsin	35,174	112
Montana	6,169	110
Nevada	1,216	110
Illinois	84,871	108
Michigan	55,844	106
Arizona	5,242	105
North Dakota	6,470	101
<i>Inadequate Facilities</i>		
Maine	8,282	98
Pennsylvania	93,756	95
Iowa	23,475	93
South Dakota	5,772	90
Missouri	33,850	89
Kansas	16,070	89
Nebraska	11,506	87
Ohio	59,823	87
Indiana	29,449	86
Virginia	22,929	86
New Mexico	4,363	82
Louisiana	18,357	78
Utah	3,988	73
Oklahoma	16,858	72
Idaho	3,748	71
Florida	13,372	71
Kentucky	18,795	66
Texas	38,821	61
West Virginia	11,477	60
North Carolina	20,711	58
Tennessee	16,514	57
Arkansas	10,946	56
South Carolina	10,670	56
Georgia	17,222	55
Alabama	14,547	51
Mississippi	9,686	44
U. S. Total	1,282,785	97

OPPORTUNITIES
FOR
YOUNG PHYSICIANS IN CIVIL SERVICE

VERNE K. HARVEY, M.D., *Medical Director*
AND

E. PARKER LUONGO, M.D., *Medical Officer*
UNITED STATES CIVIL SERVICE COMMISSION

Until recently, the opportunities for a career as a Federal medical officer, other than those afforded in the commissioned services of the Army, Navy and Public Health Service, have not received due consideration by the majority of the medical profession in the United States.

Provisions have been made for the employment of physicians in both the commissioned and civilian services by certain laws enacted by Congress and Executive Orders issued by the President. During non-emergency periods approximately the same number of physicians are employed in the classified civil service through open competitive examinations under the provisions of the Civil Service Act and rules, as are commissioned in the Army, Navy and Public Health Service.

Because of the present national emergency, large numbers of recent graduates of medical schools have been employed to provide medical care for the growing armed forces of the nation. This trend has brought about an acute shortage of young physicians available for employment in the classified civil service. The medical functions of the Veterans Administration and other Government agencies, however, must go on both in peacetime and during a national emergency.

Inasmuch as it is inevitable that the ranks of medical officers already in the various Government agencies will be depleted by retirement of the older doctors and by entrance of the younger doctors into active military duty, an effort is being made to build up the staffs of these agencies with young physicians and recent graduates of medical schools who wish to make the Federal service a career. It is therefore necessary to bring to the attention of young physicians the opportunities which are afforded by such a career.

In the past, opportunities afforded by a medical career in the civil service have been obscure in the minds of the majority of the physicians in this country inasmuch as they have not been informed generally of the fields or branches of medical prac-

tice which are represented in the civil service. It is not generally known that a physician in the civil service may participate in any phase of medical activity, ranging from a rural practice to the most highly specialized fields.

It may be well to emphasize that not all civil service physicians are employed in large Government hospitals. On the contrary, a considerable number are engaged in the general practice of medicine, for example, those employed in the Indian Service of the Department of the Interior. The Indian Service, besides maintaining general hospitals and sanatoria ranging from 50 to 250 beds, has a very active outpatient department connected with its hospitals, and many of its physicians make home calls, make field trips, conduct school examinations, and administer general public health measures among the Indians.

Young physicians may be employed under civil service as far south as Panama and as far north as Alaska. In the Canal Zone, the young physician who is interested in tropical diseases may receive excellent opportunities to study that subject. Civilian physicians in the Canal Zone are appointed mainly for duty in dispensaries and for quarantine work. The dispensary work consists of general practice involving the attending of Government employees and their families, crews and passengers of vessels, etc. The work of quarantine physicians consists of quarantine and immigration inspection of crews and passengers on incoming vessels.

Positions in Alaska under the Indian Service will appeal to young physicians who have an adventurous spirit, as will positions in the Coast and Geodetic Survey, which afford an opportunity for young physicians to spend some time at sea on Coast and Geodetic Survey vessels. The task of physicians employed in Alaska under the Indian Service is a formidable one because of the climate and the remoteness of some of the villages. However, young physicians of robust health who go to that area have an opportunity to render a great service to humanity.

It is in the fields of general practice, tuberculosis, psychiatry, surgery and public health that the largest number of Federal medical officers are engaged. The opportunities for research in these and other fields of medicine are excellent. Because of the emphasis placed on career service by modern personnel administration, "in-service training" is

playing an important part in the life of the young Government physician. In the Veterans Administration, "in-service training" affords opportunities for graduate study. The Veterans Administration operates a large tumor clinic at Hines, Ill., psychiatric clinics at its various hospitals, chest surgery clinics at the tuberculosis hospitals, and at Mt. Alto Hospital, Washington, D. C., it conducts a heart research clinic. These clinics afford excellent teaching opportunities for young physicians.

At St. Elizabeths Hospital, Washington, D. C., fine opportunities for residencies and internships in neuropsychiatry are open to recent graduates of medical schools; these residencies and internships rank among the best in the United States. St. Elizabeths Hospital is under the jurisdiction of the Federal Security Agency.

The functions of medical officers in the Food and Drug Administration of the Federal Security Agency have become of increasing importance since the passage of the Federal Food and Drug Act. Medical officers in the Food and Drug Administration are engaged in a critical review of the labelings of medicines in the light of their composition for the purpose of ascertaining whether or not the therapeutic representations are true or false as judged by a consensus of present-day medical opinion. This work offers excellent opportunities to recent graduates of medical schools who have had, in addition to their regular medical education, experience in pharmacology.

Also of increasing importance have been the medical functions of the Children's Bureau in the Department of Labor. The Child Hygiene Division of the Bureau carries on research and investigation involving fundamental technical medical study of the mental and physical condition of children in relation to heredity, environment, nutrition, and the efficacy of various methods of community health work. There are opportunities in this Bureau for young physicians with special training in pediatrics, obstetrics, or public health procedure, who are interested in extensive research study in connection with maternal and child health and services to crippled children.

In the Public Health Service, there are, in addition to the commissioned force, medical officers who are appointed under provisions of the Civil Service Act and rules. These medical officers are appointed as Acting Assistant Surgeons and are

usually detailed for local duty in the vicinity in which they reside. From time to time, however, there is opportunity for them to transfer elsewhere. Acting Assistant Surgeons are employed in connection with practically all the activities of the Public Health Service. These include hospital and relief work, quarantine and immigration work, field investigations, and epidemic control duty. The Public Health Service operates marine hospitals and relief stations throughout the United States. The beneficiaries in these hospitals and relief stations consist principally of merchant seamen, officers and enlisted men of the United States Coast Guard and civil employees of the Federal Government injured in line of duty. A considerable number of Acting Assistant Surgeons are assigned to this work.

The services of Acting Assistant Surgeons are utilized at a large number of marine quarantine stations in connection with the inspection of vessels entering the United States from foreign ports, and in connection with the medical examination of aliens entering this country. There are opportunities in the Public Health Service for Acting Assistant Surgeons to conduct investigations pertaining to industrial hygiene, goiter, anthrax, influenza, malaria, pellagra, pneumonia, tuberculosis, typhoid fever, child hygiene and public health administration.

Medical officers are employed in various other Government agencies. Two medical officers in the Government Printing Office are in charge of a small well-equipped hospital in which employees who are injured or become ill while on duty are treated. The Bureau of Engraving and Printing requires the services of a physician for similar duty. The Census Bureau of the Department of Commerce employs physicians who engage in medical statistical study. In the Civil Service Commission a number of medical officers are engaged in medical activities pertaining to Government employment and disability retirement. This activity is a combination of insurance, industrial and administrative medicine and affords young physicians a basic training in these fields which is unique in the United States.

Inasmuch as the Veterans Administration employs more civil service physicians than any other Government agency, it might be well to discuss this agency more fully. The medical service of the Vet-

erans Administration is comprised of regional offices, facilities and diagnostic centers. The term "facility" is applied to various types of field stations, including those which are hospitals only, those which may provide domiciliary care and hospitalization, others which are a combination of regional offices and hospitals, and still others which are a combination of regional offices and homes. Facilities may be primarily designed for general (medical and surgical) service, or for tuberculosis or neuropsychiatric service. However, some have a mixed service which may be a combination of any of the above services.

The diagnostic centers located at Washington, D. C., Hines, Ill., and San Francisco, Calif., were established for intensive study and observation of patients presenting diagnostic problems, and have consultant staffs consisting of physicians with national reputations in their fields. The diagnostic center at Hines, Ill., has one of the largest and most modern tumor clinics in the world.

Small clinics for thorough diagnosis and treatment of malignant growths are located strategically in facilities in New York City, Washington, D. C., Atlanta, Ga., Portland, Ore., and Los Angeles, Calif.

In nine facilities, scattered throughout the country, centers have been created for special chest surgery.

At the Veterans Administration, research is supervised by specially trained physicians on the staff of the Medical Director, and projects are entrusted to physicians having the basic specific qualifications to conduct them.

At the present time, the chances for early appointment of recent graduates of Class A medical schools who have served an approved internship are good in the Government service. Open continuous examinations have been announced by the Civil Service Commission to fill vacancies in the position of Associate Medical Officer. Physicians appointed to these positions in the Veterans Administration have excellent chances for promotion. If their records are satisfactory, they may look forward with reasonable certainty to a step-up in grade and salary within the first two or three years of their service. The cardinal criterion for advancement in the Veterans Administration's medical service is demonstrated ability.

The matter of compensation for services rendered is an important item to consider in discussing

opportunities for a medical career in the civil service. The majority of physicians are appointed in the Associate grade and receive a compensation of \$3,200 a year minus a 3½ per cent deduction for retirement purposes. The opportunities offered for advancement to \$4,600 and \$5,600 a year are good, and many physicians who demonstrate that they have administrative ability in addition to a sound medical background may advance to \$6,500 and \$7,500 a year. A young physician should not expect to accumulate a fortune when choosing a medical career in the Government service; however, he can look forward to a lifetime of adequate remuneration for his service, satisfactory employment hours, and adequate annual and sick leave with pay. He will in addition receive disability and age retirement insurance at a very low rate.

The above items are important, but of course the most important consideration is the opportunity for which every physician is searching, that is, an opportunity to practice his profession and render efficient service to unfortunate human beings. The United States Government offers this career in medicine, surgery, public health, and other specialties which should be of interest to all recently qualified physicians.

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"Annual Scientific Assembly Number", Sept. 1941

RECENT BOOKS

SYNOPSIS OF APPLIED PATHOLOGICAL CHEMISTRY. By Jerome E. Andes, M.S., Ph.D., M.D., F.A.C.P., and A. G. Eaton, B.S., M.A., Ph.D. pp. 428, with 23 illustrations and 36 tables. Cloth, \$4.00. The C. V. Mosby Company, St. Louis, 1941.

This is a concise handbook on Pathological Chemistry. The first half of the book covers the chemistry of the blood. Then there are chapters on the chemistry of cerebral fluid, the chemistry of the urine, functional tests, gastric analysis and basal metabolism. It is stated in the preface, "We would like to emphasize here that it is not the purpose or aim of this book to set up biochemical analyses as being superior to clinical observations. In only rare instances are the results obtained by such analyses diagnostic of any pathological condition, and in many diseases, even where laboratory findings show a marked alteration from normal, the changes are incidental or secondary to the disease process itself. Laboratory analyses should be used only to supplement clinical findings, and should be relied upon only when carried out by competent laboratory workers."

The book is recommended to the biochemist, the physiologist, the surgeon, the clinician, and last but not least to the medical student and the intern.

SYNOPSIS OF THE PREPARATION AND AFTERCARE OF SURGICAL PATIENTS. By Hugh C. Ilgenfritz, A.B., M.D., and Rawley M. Penick, Jr., Ph.B., M.D., F.A.C.S. pp. 532, with 55 illustrations and 3 tables. Cloth, \$5.00. The C. V. Mosby Company, St. Louis, 1941.

This handbook, written by an Instructor in Surgery and by the Professor of Clinical Medicine at Louisiana State University School of Medicine, with a foreword by Dr. Urban Maes, Professor of Surgery and Director of the Department, is a valuable addition to the series of manuals published by the C. V. Mosby Company. The work naturally divides itself into two sections; preoperative care and postoperative complications. Of the aims in preoperative care "the most difficult is the evaluation of the patient as a whole. This problem is sometimes attacked by ordering indiscriminately a large number of tests with the hope that they will give a general idea of the patient's condition. Such practice is both unsound and wasteful." "Postoperative care is largely a continuation of that begun before operation. Of inestimable value in this respect is the information which has been gained about the patient before operation."

The numerous references are placed at the ends of chapters. Illustrations are ample and well chosen. A voluminous subject index completes the work.

OCCUPATIONAL DISEASES, DIAGNOSIS, MEDICOLEGAL ASPECTS AND TREATMENT. By Rutherford T. Johnstone, A.B., M.D. pp. 558, with 132 illustrations including 7 color plates. Cloth, \$7.50. W. B. Saunders Company, West Washington Square, Philadelphia, 1941.

A practical treatise on a subject of immediate and increasing interest. Part I covers the purpose and the administration of workmen's compensation and the function of the physician as related to workmen's compensation. Part II considers industrial poisoning from gases, solvents and fumes. Part III deals with poisoning from metals; lead, mercury, manganese, chromium, cadmium, selenium, vanadium, arsenic, zinc, antimony, copper and tin, with diagnosis, medicolegal aspects and treatment. Part IV treats of silicosis and the other diseases produced by inhalation of dust. Back sprains and hernia are considered in Part V. In Part VI the dermatoses are found to provide 69 per cent of occupational disease and cause an annual loss of \$4,000,000 in the United States. Part VII treats of occupational cancer, heat and climatic conditions, electrical injuries, caisson disease. The final chapters cover the medicolegal relationship of trauma to disease, malingering, and the pre-employment examination.

The book is authoritative, exhaustive and thoroughly up to date. A complete bibliography is broken up as references at the end of each chapter.

INFANTILE PARALYSIS. POLIOMYELITIS. A SERIES OF SIX LECTURES AT VANDERBILT UNIVERSITY, April 7, 8, 9, 14, 15, and 16, 1941, under the auspices of The National Foundation for Infantile Paralysis. pp. 229. Cloth. Published by The National Foundation for Infantile Paralysis, Inc., 120 Broadway, New York City. 1941.

This book of less than 200 pages contains a series of six lectures delivered by six men, expert in their particular field, on the subject of poliomyelitis. The symposium, for the most part, deals with the fundamental problems of etiology, epidemiology, immunology, and pathology which are so important in the understanding and management of this subtle disease. Each lecturer reviews, discusses, and evaluates experiments and researches, past and present. Enough details are given to give the reader an insight into the problems and difficulties which the research workers encounter. While admitting failure to find an adequate treatment for the acute stage of the disease, the lecturers are encouraged by the progress already accomplished, particularly in the treatment and rehabilitation of the poliomyelitis patient. The book gives an authoritative summary of the present knowledge on this most dreaded disease,—poliomyelitis.

KALEI K. GREGORY, M.D.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC.,
REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912,
AND MARCH 3, 1933

of *Rhode Island Medical Journal*, published monthly at Providence, Rhode Island, for October, 1941.

State of Rhode Island } ss.
County of Providence }

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Albert H. Miller, M.D., who, having been duly sworn according to law, depose and says that he is the Managing Editor of the *Rhode Island Medical Journal* and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Rhode Island Medical Society, 106 Francis Street; Managing Editor, Albert H. Miller, M.D., 106 Francis Street.

2. That the owner is Rhode Island Medical Society, 106 Francis Street.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

ALBERT H. MILLER, M.D.

Sworn to and subscribed before me this 11th day of October, 1941.

JAMES B. LITTLEFIELD
(My commission expires June 30, 1946.)

[SEAL.]